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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/701,559	02/05/2001	Mark John Riches	03042.0060	8942

7590 11/14/2002
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EXAMINER

LUU, THANH X

ART UNIT PAPER NUMBER

2878

DATE MAILED: 11/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/701,559

Applicant(s)

RICHES ET AL.

Examiner

Thanh X Luu

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 30-33 is/are pending in the application.
- 4a) Of the above claim(s) 30-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. Applicant's election with traverse of Group I to claims 1-15 in Paper No. 9 is acknowledged. The traversal is on the ground(s) that there is no serious burden on the examiner. This is not found persuasive because Group IV is a combination of Groups I and II. The search of the subcombination (elected Group I) does not necessitate a further search for the combination; thus, there is a serious burden on the examiner.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 1-15 and 30-33 are currently pending.

3. Claims 30-32 are withdrawn from further consideration as being drawn to a nonelected invention.

Specification

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 7 and 8, "the plurality of beams" lacks proper antecedent basis.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-4 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Takenouchi et al. (U.S. Patent 4,177,487).

Regarding claims 1-4 and 33, Takenouchi et al. disclose (see Figure 4) an electro-optic device comprising: a photosensitive surface (27) which surface is arranged to comprise a plurality of independently-gatable portions (27a-n) each portion being responsive to an image signal (from 25). Takenouchi et al. further disclose (see Figure 4) the device comprises an image intensifier (22), wherein the image intensifier comprises a segmented photocathode (27a-n). Takenouchi et al. also disclose (see Figure 4) the segmented photocathode comprises a photocathode layer (any one of 27a-n) and a segmented conductive layer or electrode (28a-d) adjacent the photocathode layer for capacitive control.

9. Claims 1, 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Ulich et al. (U.S. Patent 5,029,009).

Regarding claims 1, 5 and 6, Ulich et al. disclose (see Figures 4 and 5) an electro-optic device comprising: a photosensitive surface (66) which surface is arranged to comprise a plurality of independently-gatable portions (portions of 66 corresponding to electrodes 62) each portion being responsive to an image signal (58). Ulich et al.

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further disclose (see Figures 4 and 5) the device comprises a solid-state imager (82; see also column 5, lines 11-13), wherein the solid state imager comprises segmented imaging sections (inherent in CCDs).

10. Claims 1, 9, 10, 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Montpas (U.S. Patent 3,654,475).

Regarding claims 1, 9 and 10, Montpas discloses (see Figures 1 and 2) an electro-optic device comprising: a photosensitive surface (45) which surface is arranged to comprise a plurality of independently-gatable portions each portion being responsive to an image signal (16). Montpas further discloses (see Figures 1 and 2) an imaging arrangement for two dimensional optical data represented by at least two beams of electromagnetic radiation, having means for gating and converting (43, 44, 45) the beams into image data and wherein the portions corresponds to each of the at least two beams of radiation. Montpas also discloses (see Figures 1 and 2) means for splitting (10) an incident beam into the at least two beams as claimed.

Regarding claims 14 and 15, Montpas discloses (see Figures 1 and 2) an imaging arrangement and method for two dimensional optical data represented by an incident beam of electromagnetic radiation, comprising: means for splitting (10) the incident radiation (16) into a plurality of beams (not labeled; see column 2, line 48); means for gating (43, 44) and converting (45) the beams into image data; wherein the means for gating and converting the beam into image data includes a single electro-optic device having independently-gated portions (45) corresponding to each of the plurality of beams.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ulich et al. in view of the European Patent publication of Riches (EP 0701185, published March 13, 1996).

Regarding claim 7, Ulich et al. disclose the claimed invention as set forth above. Ulich et al. do not specifically disclose an erasing means for erasing an image. Riches teaches (see Figure 5) erasing means (Erase (reset)) for erasing an image in a solid state imager. Thus, Riches recognizes that improved imaging can be accomplished by erasing remnant charges. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve detection by resetting or erasing data before further imaging in the solid state imager of Ulich et al. in view of Riches.

Regarding claim 8, Ulich et al. disclose the claimed invention as set forth above. Ulich et al. do not specifically disclose an overwriting means for overwriting an image. Riches teaches (see column 4, lines 5-15) overwriting means (an optical system with image sensor) for overwriting an image. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to substitute data by overwriting an image in the solid state imager of Ulich et al. in view of Riches to speed up imaging.

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13. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Montpas in view of Dirscherl et al. (U.S. Patent 5,001,348).

Regarding claims 11 and 12, Montpas discloses the claimed invention as set forth above. The gated portions would inherently correspond with each beam since the beams are incident on the portions. Montpas does not specifically disclose chromatic means for splitting each of the plurality of beams into a plurality of differently colored beams. Dirscherl teaches (see Figures 11 and 12) splitting and chromatic means (12, 14, 15, 16) for splitting beams into a plurality of colored beams (IR, UV) in an image intensifier device (see Figure 7). Thus, Dirscherl recognize that color discrimination and splitting improves detection. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide chromatic means as claimed in the apparatus of Montpas in view of Dirscherl to improve contrast and detection.

14. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Montpas in view of Riches.

Regarding claim 13, Montpas discloses the claimed invention as set forth above. Montpas does not specifically disclose means responsive to an event for storing converted image data converted before the event. Riches teaches (see Figure 5) means responsive to an event (triggering signal) for storing (9-14) converted image data which was converted before the event. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to save image data before erasure in the apparatus of Montpas as taught by Riches to store desired detected data.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is (703) 305-0539. The examiner can normally be reached on Monday-Friday from 6:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta, can be reached on (703) 308-4852. The fax phone number for the organization where the application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

txl
November 13, 2002


Thanh X. Luu
Patent Examiner